2. If there is a constitutional cause of lung-disease, but only a small area of lung at present suffering, and that in the upper lobes, while there is a capacious chest with large areas of lung in the lower portions quite sound and insufficiently used, then it is safe to secure localised rest for both upper lobes, and to make the lower portions do a fairer proportion of the work; but, even under these circumstances, the respiration should be kept at as low a point as practicable. A case illustrative of this rule has just occurred to me. A fine young man, with a very capacious thorax, who has practised all sorts of gymnastic exercises with his arms while restricting the lower parts of the chest by dress, has thus acquired a habit of breathing almost entirely with the upper portions of lung. He has a tuberculous family history; and, after foolish overtraining, by which he reduced his flesh considerably, he overtaxed his lungs in a race, and he has since become the subject of partial consolidation of the apices and recurrent hæmoptysis. Finding that he has large tracts of scarcely utilised lung at the lower parts of the chest, I have not hesitated to get Mr. Bigg to apply mechanical restraint, by means of lung-splints, to both upper lobes; but I have, at the same time, secured rest for the whole lungs by sending the patient on a long sea-voyage to a warm climate, under careful watching against over-exercise.

3. If a portion of lung has become disintegrated, under the influence of constitutional causes, and remains obstinately unhealed after all constitutional symptoms have been arrested, and, for some time past, no other portions of lung have shown a tendency to yield, then I think it is quite safe to secure localised rest for the disintegrated portion, so as to give it a fairer chance of healing; while an amount of air and exercise may be allowed to the patient, for the purpose of improving his reparative powers, which could not be permitted while the damaged lung was exposed to the same amount of action as the sound parts. But even here the utmost caution is required not to carry the exercise beyond a very limited amount.

4. If the constitutional tendency to lung-disease—"the abnormal physiological state"—is strong, and signs of impending mischief in the lungs are scattered, no localised rest should be attempted, but every means should be brought to bear upon the important object of maintaining respiration at its lowest point, consistent with life and nutrition, until the constitutional tendency has become passive and the local symptoms have been removed.

In conclusion, to prevent misapprehension on so vital a point, let me remind my readers that, in urging "the importance of rest in consumption," I am referring to cases in which the lungs are already damaged, or in which the constitutional disease has declared itself in sufficient force to render tuberculisation imminent. "If the symptoms are only what is commonly called premonitory, that is, if they are those of commencing tuberculosis, and no reason or sign is discoverable which justifies the suspicion that tuberculisation has commenced; if a sufficiency of fat remains without calling upon the albuminoid tissues, the principles of treatment are quite opposite to those above detailed." (*Tuberculosis*, 2nd ed., page 47). "It must be admitted that the proper regulation of this matter is one of the greatest trials of the astuteness of the physician, and it is almost impossible, unless he can make the patient and his friends comprehend its meaning and importance. But not less does it test the skill and judgment of the physician to decide upon the moment when restrictions upon fresh air and exercise ought to be removed. The argument so often used when a patient appears to be 'doing well,' that 'it is best to let well alone,' may be fatal if applied to this case. The very fact that he is 'doing well' may be the sign that he must not be 'let alone;' that he is now in a state in which it is safe to make a call upon his mechanical force, to accelerate histogenesis, to supply fresh oxygen—in a word, to set about the restoration of active nutrition. And then, again, how scrupulously these new tasks should be set; how carefully watched in their effects, lest even now they cannot be continued with safety! On the first sign of their being badly borne, they should be moderated or promptly stopped." (*True First Stage*, page 46.)

ON BRONCHIAL ASTHMA.

By JOHN C. THOROWGOOD, M.D.,
Physician to Victoria Park Hospital for Diseases of the Chest, etc.

I SHOULD like to offer a few remarks on Dr. Berkart's ingenious and interesting paper on the nature of so-called bronchial asthma, in the JOURNAL of November 8th.

Dr. Berkart admits that experimental physiology shows that the bronchial muscles may contract; but, as to *how* and *when*, nothing is known. It is well known how Dr. Williams, years ago, proved the contractility of the bronchial muscle, and subsequent observers have confirmed his conclusions. Recently, Paul Bert has been experimenting on the contractility of the lungs, and Dr. Berkart tells us how this observer failed to demonstrate the contractility of the lungs in cases where insufflation of these organs was carried to an extreme degree. This is a point of great interest in connection with those cases of very protracted asthma, complicated with emphysema, which we meet with in old persons, and where the difficulty is, as I have more than once been told by the patients themselves, *to get the air out of the chest*. The bronchial muscle is exhausted and paralysed, and cannot contract to expel the air, and the chest is always over-filled with air.

There are, however, some experiments of Paul Bert's that point in another direction. He, as well as Traube, Bernard, and Schiff, has proved that the respiration may be arrested by strong irritation of the pneumogastric or laryngeal nerves, or those distributed to the Schneiderian membrane. This arrest is much more easily produced during expiration than during inspiration, and it is observed that actual contraction of the lung occurs under the influence of the vagi. (*Sydenham Society's Biennial Retrospect*, 1869–70, page 26.)

Now, when we consider the phenomena of a fit of spasmodic asthma, we find it is very apt to come on after complete expiration, as by a fit of coughing or laughing. The lungs are emptied of air, and, under faulty innervation, they will not expand, but remain contracted, and a paroxysm of dyspnœa results.

This may come on quite suddenly without any antecedent catarrh or premonitory symptoms. The case is analogous to a colic in the muscular coat of the bowel, and pure spasmodic asthma has no more to do with inflammation or catarrh than colic has to do with dysentery. Regard, again, the effects of treatment. Nitre paper, when burned, almost surely relieves pure sudden spasmodic asthma. If, however, bronchitis coexist, the nitre paper fumes act as irritants, and, instead of giving relief, make the patient worse. Stramonium and belladonna, proved relaxors of bronchial stricture (Williams), are very efficacious in relieving the true spasmodic form of asthma.

The experiments of Paul Bert, quoted by Dr. Berkart, and those to which I have myself referred, appear to me of much value in distinguishing between the real spasmodic asthma, with contracted lungs, common to all ages of existence, and that form of asthma which is more common in old people, where the contractility of the lung has been exhausted, and where over-distension of chest, difficult expiration, and degenerative change of tissue are the most evident symptoms, with probably more or less chronic bronchitis due to a relaxed and badly nourished mucous membrane.

ANTICIPATION AND TREATMENT OF *POST PARTUM* HÆMORRHAGE.

By JOHN BASSETT, M.D., Professor of Midwifery to Queen's College, Birmingham.

THE various communications which are now appearing in the JOURNAL on this subject point to the place which it occupies in the minds of the members of our Association. This is not to be wondered at when we consider the number of lives which are sacrificed annually by this cause. After an active experience extending over five-and-twenty years, and a very careful examination of all the circumstances surrounding *post partum* hæmorrhage, I have arrived at the conclusion that the best method of anticipating it is to prepare the patient for her confinement by a course of medical treatment extending over a period of from four to six weeks, the basis of such treatment being the administration of iron. Of course, this can only be done in those who are subject to flooding, and in those who are so out of health that they seek medical relief. I have found no difficulty in carrying out this plan, for those who are liable to flood are very glad to carry out any method which will prevent it. It is to this that I attribute the fact, that I have never had a fatal case of *post partum* hæmorrhage amongst my private patients, although I have unfortunately seen several in the practice of others.

As regards the treatment of hæmorrhage, the remedies are of two kinds—those which are immediately available, and those which require time and circumstances for their development. Ergot has been put prominently forward, and I have seen it answer admirably sometimes; but it is always somewhat uncertain in its action, and it may throw the uterus into a state of spasm. It has appeared to me on several occasions that, where the uterus has been shy and lethargic, it would have been better to leave it alone rather than to hurry it by the hand and ergot; but I do not think any positive rule can be laid down on this subject. Every accoucheur carries about with him nature's *tourniquet*: the human hand applied to the uterus is not only the most available, but the most efficacious of agents; and, if this do not answer, it is not